AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-10 (cancelled).

Claim 11 (new): An optical connector comprising a plurality of insertion holes for inserting optical fibers therein, said insertion holes being provided at predetermined intervals, the accuracy of the center-to-center dimension between said insertion holes adjacent to each other being within ± 0.5 μm, the degree of parallelization in the hole axis direction between said insertion holes adjacent to each other being within ± 0.1 degree, wherein

the optical connector comprises a substrate formed of a material selected from the group consisting of glass composed mainly of silicon oxide, glass ceramic, quartz glass, translucent alumina, and zirconium oxide.

Claim 12 (new): The optical connector according to claim 11, wherein said insertion holes are arranged in a two-dimensional honeycomb form.

Claim 13 (new): The optical connector according to claim 11, wherein, in said insertion holes, the insertion hole end on the optical fiber insertion side has been tapered.

Claim 14 (new): The optical connector according to claim 11, wherein said optical connector is a ferrule for optical communication or a fiber array for optical communication.

Claim 15 (new): A method for manufacturing the optical connector of claim 11, said method comprising the steps of:

fixing a substrate for said optical connector;

regulating the hole axis direction on an optical fiber insertion side in said fixed substrate; and

forming insertion holes in the substrate with regulated hole axis direction by pulsed laser beam machining.

Claim 16 (new): The method according to claim 15, further comprising the step of, in forming the insertion holes by pulsed laser beam machining, shaping the end of said insertion holes into a taper of a predetermined angle.

Claim 17 (new): The method according to claim 15, further comprising the step of etching the inner wall of said insertion holes and taper part formed by said laser beam machining.

Claim 18 (new): The method according to claim 15, wherein said pulsed laser beam is a femtosecond laser beam.

Claim 19 (new): The method according to claim 17, wherein said etching is carried out with at least one inorganic acid selected from the group consisting of hydrofluoric acid, hydrochloric acid, nitric acid, and sulfuric acid.